We claim:

1. A method of treating or preventing a disorder comprising administering to a subject a therapeutically effective amount of enoxaparin, wherein the disorder displays enhanced activity of at least one of the matrix metalloproteinases neutrophil collagenase (MMP-8), aggrecanase, hADAMTS1, and gelatinase A (MMP-2).

2. The method of claim 1, wherein the disorder is a degenerative joint disorder, connective tissue disorder, wound healing disturbance, periodontal disorder, disorder of the locomotor system, or disturbance of bone metabolism.

3. The method of claim 2, wherein the disorder is osteoarthroses, spondyloses, chondrolysis, collagenoses, inflammatory, immunological or metabolism-related acute and chronic arthritides, arthropathies, or myalgias.

4. The method of claim 1, wherein the enoxaparin is administered by subcutaneous, intraarticular, intraperitoneal or intravenous injection.

5. The method of claim 4, wherein the enoxaparin is administered by intraarticular injection.

6. The method of claim 1, wherein the dose of enoxaparin is from about 5 µg to about 200 mg.

7. The method of claim 1, wherein the dose of enoxaparin is from about 10 µg to about 40 mg.

8. The method of claim 1, wherein the enoxaparin is administered rectally, orally, inhalationally, or transdermally.

9. A method of identifying inhibitors of aggrecanase activity comprising mixing ADAMTS1 with a test inhibitor molecule and a substrate, and identifying the presence or absence of neoepitopes generated by the aggrecanase activity of ADAMTS1 after a period of incubation.

10. The method of claim 9, wherein the ADAMTS1 is provided in a test kit.

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